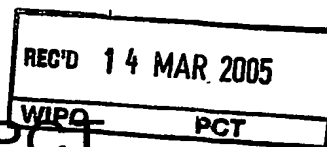


PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY



21/07

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/012483

International filing date (day/month/year)
04.11.2004

Priority date (day/month/year)
21.01.2004

International Patent Classification (IPC) or both national classification and IPC
H04N7/01

Applicant
DEUTSCHE THOMSON-BRANDT GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Authorized Officer

Beaudoin, O

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/012483

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/012483

**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or
Industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item VIII.

The application does not meet the requirements of Article 6 PCT, because claims 1, 2 and 11 are not clear.

1. The following feature of the characterising part of claim 1 is not clear:
"the maximum picture content delay caused by the insertion irregularity is kept smaller than average".

- it is not clear what a picture content delay is. For the search, it has been considered as being the delay of the video track relative to the audio track.

-it is not clear what the "average" is and where in the description it is introduced or calculated. This condition -maximum delay smaller than average- seems not to be supported by the description. For the search, this condition has been interpreted as meaning that the maximum delay of the video track relative to the audio track which normally should be kept smaller than a first value, should be kept smaller than a second value which is smaller than the first one if certain criteria are met (because the delay of the video track relative to the audio track should not be allowed to become too important when at least one speaker is visible within a scene).

2. This observation also applies to claim 2 and claim 11.

Re Item V.

- 1 The following document is referred to in this communication:
D1 : WO 99/52281 A (KIEU CONG TOAI ; POIRIER DANIEL (CA); LE DINH CHON TAM (CA); MIRANDA T) 14 October 1999 (1999-10-14)
- 2 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parentheses applying to this document; see page 4, lines 10 to 19 and page 5, lines 1 to 22):

an apparatus and a method for converting a first format picture sequence (a standard video signal having 59.94 fields per second) into a second format picture sequence (an HDTV video signal having 60.00 fields per second), by adding a number of video fields to the first format picture sequence. Determination of the best moment for adding the new video fields is performed in order to reduce visible motion judder (so that the human eye does not perceive an abrupt change in the video image, for example by detecting the best motion conditions which occurs either when the image motion is high or very low).

From this, the subject-matter of independent claim 1 differs in that:

the step of determining field or frame insertion locations is controlled such that when a slowly moving or static scene is detected as well as speech in the audio track, the maximum delay of the video track relative to the audio track should be kept smaller than when the previous conditions are not detected (see Re Item VIII. above).

2.1 The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)

The problem to be solved by the present invention may be regarded as:
-how to control best the insertion of additional fields or frames into a picture sequence to change its format?

2.2 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The solution of claim 1 allows to gain perceived lip-sync, which improves the change of format. This aspect is not disclosed in document D1.

2.3 The same reasoning can be used to show that independent claims 2 and 11 meet the requirements of the PCT with respect to novelty and inventive step.

2.4 Claims 3-10 are dependent on claim 1 or claim 2 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/EP2004/012483

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

21607

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

REC'D 14 MAR 2005

WIPO PCT

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/012483

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H04N7/01

Applicant
DEUTSCHE THOMSON-BRANDT GMBH

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Name and mailing address of the ISA:



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INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/012483

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INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/012483

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-11
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see separate sheet

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/EP2004/012483
